

## MATERIA MEDICA AND PHARMACY.

8. *Saccharine Carbonate of Iron and Manganese*.—Dr. S. T. SPEER has published (*Med. Times and Gaz.* Dec. 10, 1853) the following formula for the preparation of a saccharine carbonate of iron and manganese, which he extols as superior to every other chalybeate, and as having a complete freedom from the inky flavour of other preparations of iron:—

“Take of finely powdered sulphate of iron  $\mathfrak{Z}\text{ij}$ ,  $\mathfrak{z}\text{j}$ ; carbonate of soda  $\mathfrak{Z}\text{v}$ ; sulphate of manganese  $\mathfrak{Z}\text{j}$ ,  $\mathfrak{z}\text{j}$ ; white sugar  $\mathfrak{Z}\text{iiiss}$ . Dissolve each of the three first-mentioned ingredients in a pint and a half of water, add the solutions, and mix them well; collect the precipitate on a cloth, filter, and immediately wash it with cold water; squeeze out as much of the water as possible, and, without delay, triturate the pulp with the sugar, previously reduced to a fine powder. Dry it at a temperature of about  $120^{\circ}$  Fahr.

“The compound thus prepared, is a powder of a reddish-brown colour, and devoid of all taste, save that imparted by the sugar, with which the salts of the two metals are conjoined. The dose is 5 grs. gradually increased up to  $\mathfrak{z}\text{j}$ , three times a day; it should be given with the meals, or at least immediately after.”

9. *Opium and its Adulterations*.—The *Lancet* (Nos. for Jan. and Feb. 1854) contains an account of the microscopical and chemical examination of a number of specimens of opium.

Of *twenty-three* samples of gum opium as imported, it appears that no less than *nineteen* of them were adulterated, *four* only being genuine, the prevailing adulterations consisting of POPPY CAPSULE and WHEAT FLOUR, many of the samples being adulterated to a very large extent; but in two cases SAND, in one SUGAR, and in another GUM, were discovered.

Of *thirty-two* samples of powdered opium, *thirty-one* were adulterated, and *one* only genuine; the principal adulterations, as in the previous case, being with POPPY CAPSULE and WHEAT FLOUR.

That *four* of the samples were further adulterated by the addition of POWDERED WOOD, introduced, no doubt, in the process of grinding. Out, therefore, of *fifty-five* samples of gum and powdered opium, the results of the microscopical and chemical analyses of which have been recorded, *five* only were genuine.

According to the analyses of the gum opiums as imported, the amount of alkaloids was found to vary from 2.7 to 14.0 per cent.—that is, in the proportion of nearly one to five; it is probable, however, that the Egyptian opium, which furnished only 2.7 per cent. of alkaloids, had been deprived of its morphia, and it was also adulterated with an enormous quantity of some gummy substance. The two gum opiums which furnished the next lowest amounts were—another sample of Egyptian opium, which contained only 3.7 per cent., and a sample of Turkey opium, which yielded but 4.2 per cent. of alkaloids.

From an examination of the analyses of the powdered opiums, it appears:—That the amount of alkaloids varied from 2.3 up to 12.2 per cent., or in the proportion of nearly one to six—that is, the samples differed in strength in that ratio. The lowest amounts of alkaloids furnished by the powdered opiums were 2.3 and 3.2 per cent.; these were, in all probability, exhausted opiums, which had been previously employed in the preparation of tincture.

The author states it as his belief, “that it is not an unfrequent practice with druggists to employ the insoluble residue, when dried and pulverized, left from the preparation of the tincture of opium, in the adulteration of powdered opium. We have also known it to be used for making the unguentum gallæ compositum.

“From all this, then, it follows, partly in consequence of adulteration, that crude opium varies to a great extent in strength and activity, so much so that no certain reliance can be placed on the effects produced by this remedy, administered according to any fixed or uniform scale of doses.

"It further follows that all those preparations made from opium, or into the composition of which opium enters, are of equally uncertain strength and power—as, *tinctura opii*, *tinct. camphoræ composita*, *vinum opii*, *pulvis cretæ comp. cum opio*, *pulv. ipecacuanhæ comp.*, *pulv. kino comp.*, *pilulæ saponis comp.*, *confectio opii*, *extractum opii*, *enema opii*, *linimentum opii*, and *emplastrum opii*, of the London pharmacopœia; *tinctura opii ammoniata*, *acetum opii*, *pilulæ opii*, *pil. calomelanos et opii*, *pil. plumbi opiatæ*, *electuarium opii*, and *trochisci opii*, of the Edinburgh and Dublin pharmacopœias.

"But, further than this, gum opium is possessed of very different degrees of strength, as is clearly shown by the following results, obtained by different analysts and experimentalists:—

"Chevallier found in six samples of choice Smyrna opium the following proportions of water, viz: 33.5, 35.0, 40.5, 42.25, 52.5, and 53.0 per cent.

"O'Shaughnessy found from 25 to 21 per cent. of water in Indian opium (Behar agency), and 13 per cent. in Patna opium. Dr. Eatwell, the opium examiner in the Benares district, finds that the proportion of water varies from 30 to 24.5 per cent. in the opium of that district.

"With respect to the proportion of morphia, Chevallier says that Smyrna opium contains from 5.6 to 6.4 per cent. of that alkaloid; Constantinople, from 2.8 to 3.2; and Egyptian opium, from 2.0 to 2.4 per cent.

"This subject was discussed at the Pharmaceutical Society of Paris on the 2d of April, 1850, and Mialhe stated that the proportion of morphia in commercial opium varied from 1 to 10 per cent., and this was confirmed by Soubeiran. Guibourt said he obtained from 15 to 17 per cent. in Smyrna opium, as also did MM. Caventou and Abergier. Dublanc affirmed that it contains at most 14 per cent., but sometimes it is as low as 1, 2, or 3 per cent. Guillemette rarely obtained more than 14, while good specimens yielded from 10 to 12 per cent. De Vry analyzed 21 samples of commercial opium, and found the proportions of morphia to vary from mere traces to 9.2 per cent. (but his process was not a good one). Reich got from 10 to 12 per cent.; and O'Shaughnessy obtained from the opium of the Behar agency from 1.75 to 3.5 per cent. of morphia, and 0.75 to 3.5 of narcotina; in that from Hazareebaugh, 4.5 of morphia, and 4.0 per cent. of narcotina; and in Patna garden opium he extracted 10.5 per cent. of morphia, and 6.0 per cent. of narcotina. Dr. Eatwell found in the opium of the Benares district the following proportions of morphia and narcotina in the years 1845 to 1848:—

	Morphia.	Narcotina.
1845 . . . . .	2.48	5.26
1846 . . . . .	2.38	4.52
1847 . . . . .	2.20	5.68
1848 . . . . .	3.21	4.06

"These last facts show that, even if we could succeed in obtaining in all cases gum opium of undoubted purity, yet we could not rely upon its producing uniform effects. This consideration shows the necessity of employing in medicine some preparation made from this drug, of ascertained strength; this, to some extent, we possess in the salts of morphia; and, no doubt, it is far better to prescribe these, in the majority of cases, in preference to crude opium.

"But it is probable that a preparation might be obtained formed of more than one constituent of opium, and which would, therefore, more nearly resemble the complex and original drug. One method by which an approximation to uniformity of strength could be obtained in the tincture of opium, is by a previous analysis of the gum opium from which it is to be prepared, and a regulation of the dose according to the strength of that opium; or the alkaloids might be added where they were deficient, so as to insure as near an approach to uniformity as practicable.

"It should be observed that, of the previous samples of powdered opium, those which were found to contain the largest percentages of water had been kept in a tin case, and thus the moisture prevented from escaping; while most of the samples which contained the smaller percentages of water, had been exposed to the atmosphere, and so lost part of their water."

10. *Extract of Bullock's Blood*.—Dr. MAUTHNER, who introduced this remedy, writes to Dr. Behrend as follows: "I now give it to children in larger doses than formerly, to the extent of half an ounce in the day, dissolved in water. In many anæmic states, the favourable result is so striking that the parents, perceiving the improvement of their child, generally desire the continuance of the agent. In these larger doses, it is true, the drug colours the dejections of a brown hue, but it does not give rise to the least dyspeptic symptom. It has never caused emesis, and, if the child has shown some dislike to it at first, it takes it afterwards with great avidity. Children who were in the extreme stage of exhaustion, whose stomachs were so irritable that milk and beef-tea or broth were rejected by them, and cod-liver oil could not be in the least retained, bore the extract of ox-blood well, and throve admirably." Here, in Berlin [Mauthner is at Vienna], the *extractum sanguinis bovini* is given with very good effect to chlorotic and emaciated girls, and even to phthisical adults. A colleague has found it very efficacious in rachitis.—*Journ. für Kinderkrankheiten*.

11. *Decoction of Olive Leaves in Intermittent Fever*.—Mr. MALTAS states (*Pharmaceutical Journal*) that he was in the island of Mytilene at a time when fever and ague of the worst description was raging in the island; in fact, it was so bad, that death ensued frequently after a week or ten days. The small quantity of quinia at the druggists' was soon exhausted, and he could procure none to administer to patients. Knowing that *biberine* and *salicine* were often used for fever and ague, he turned over in his mind all the bitters he could think which might prove effectual. Many were poisonous, and he rejected them; then thought of *olive leaves*, and after several trials, he commenced administering doses of a decoction of the leaves—say two handfuls boiled in a quart of water till evaporation had reduced it to a pint. This he gave in doses of a wineglassful every three or four hours. Obstinate cases of fever gave way before it, and for many years he has found it more effectual than quinia.

## MEDICAL PATHOLOGY AND THERAPEUTICS, AND PRACTICAL MEDICINE.

12. *Curability of Tubercular Meningitis*. By H. HAHN.—This disease has been too generally regarded as an incurable malady. A child affected with tuberculous meningitis is a child nearly as much condemned in the sight of the parents as in that of physicians. Nevertheless, such an idea, as cheerless as it is false, is a great misfortune, for it depresses courage, paralyzes energy, and scarcely permits the evil to be combated with through the more efficacious measures. The defeat, too, seems to have nothing humiliating about it, since it is regarded as a necessity. The prejudice which attributes the character of incurability to tuberculous meningitis, only serves the purpose of shackling the progress of medical art. But we have sufficiently cleared up this question in the fourth chapter, and we have there shown that the disease is, in a very great number of cases, susceptible of cure.—*De la Méningite Tuberculeuse*.

13. *On Tuberculosis in Egypt*.—In 363 dissections at Cairo, by Prof. GRIESINGER, there was tubercle in 62 (17 per cent.), but as in 12 it was very trifling and obsolete, it should be said that there was recent tubercle in 50 (13.8 per cent.). (In Stuttgart and Prague the proportions are, according to Cless and Dittrich, whose observations are referred to for comparative data, 36—37 per cent. in both places.) It was less common in old persons; its greatest frequency was between the ages of 15 and 20; but in general terms it may be said to have been nearly the same between 7 and 40 years. Among the 363 dissections in the hospital were 333 Fellahs and ten Negroes; the proportion of tubercle was only 11.11 per cent. among the former, and no less than 50 per cent among the latter. Dr. Griesinger remarks that the disposition of Negroes